

1 What is claimed is:

1 1. A heat spreader comprising:

2 a body having a top surface, a bottom surface, at least one side and at least one corner;
3 a plurality of downset legs formed thereon, wherein the plurality of downset legs are formed
4 to be downset from the body bottom surface by a distance, wherein the plurality of downset legs
5 and the body bottom surface define a cavity; and
6 at least one notch formed between the top surface and the bottom surface proximate to the
7 at least one corner.

1 2. The heat spreader of claim 1, wherein at least one downset leg is formed proximate to the at
2 least one corner of the heat spreader body.

1 3. The heat spreader of claim 1, wherein at least one of the downset legs has a void formed
2 therein, wherein the void is configured to receive at least one mechanical attachment device.

1 4. The heat spreader of claim 1, wherein the at least one downset leg is configured to receive
2 at least one clip.

1 5. The heat spreader of claim 1, wherein the body and the at least one downset leg is
2 comprised of thermally conductive material.

1 6. The heat spreader of claim 1, wherein the cavity is configured to receive at least one
2 microelectronic die.

1 7. A method of forming a heat spreader comprising:

- 2 forming a mass of material approximately rectangular in shape; and
- 3 forming at least one downset leg on the mass of material.

1 8. The method of claim 7, wherein the forming comprises at least one cold forming process.

1 9. The method of claim 7, wherein the method further comprises forming at least one corner on
2 the mass of material, wherein the at least one downset leg is formed in the vicinity of the corner.

1 10. The method of claim 7, wherein at least one void is formed on the at least one downset leg,
2 wherein the void is configured to receive at least one mechanical attachment device.

1 11. The method of claim 7, wherein the at least one downset leg is formed to be configured to
2 received at least one clamp.

1 12. A microelectronic package comprising:

2 a substrate having a surface;

3 at least one microelectronic die attached to the surface; and

4 a heat spreader attached to the surface, wherein the heat spreader has a top surface, a

5 bottom surface, at least one side and at least one corner, wherein a plurality of downset legs is

6 formed thereon, wherein the plurality of downset legs are formed to be downset from the bottom

7 surface by a distance, and the plurality of downset legs and the bottom surface define a cavity,

8 and at least one notch formed between the top surface and the bottom surface proximate to the

9 at least one corner.

1 13. The microelectronic package of claim 12, wherein said microelectronic die is configured to
2 be disposed within the cavity, and is configured to be attached to the bottom surface of the heat
3 spreader.

1 14. The microelectronic package of claim 12, wherein at least one of the plurality of downset
2 legs is formed in the vicinity of the corner of said heat spreader.

1 15. The microelectronic package of claim 12, wherein at least one of the plurality of downset
2 legs has at least one void formed thereon, wherein the at least one void is configured to receive
3 one or more mechanical attachment devices.

1 16. The microelectronic package of claim 12, wherein the at least one downset leg is configured
2 to receive one or more clips.

1 17. The microelectronic package of claim 12, wherein the heat spreader is comprised of
2 thermally conductive material.

1 18. The microelectronic package of claim 12, wherein the top surface is approximately
2 octagonal in shape.

1 19. A computing system comprising:
2 a microelectronic package, which includes a substrate having a surface;
3 at least one microelectronic die attached to the surface; and
4 a heat spreader attached to the surface, wherein the heat spreader has a top surface, a
5 bottom surface, at least one side and at least one corner, wherein a plurality of downset legs is
6 formed thereon, wherein the plurality of downset legs are formed to be downset from the bottom

7 surface by a distance, and the plurality of downset legs and the bottom surface define a cavity,
8 and at least one notch formed between the top surface and the bottom surface proximate to the
9 at least one corner.

1 20. The computing system of claim 19, wherein the microelectronic die is configured to be
2 disposed within the cavity, and is configured to be attached to the bottom surface of the heat
3 spreader.

1 21. The computing system of claim 19, wherein at least one of the plurality of downset legs is
2 formed in the vicinity of the corner of said heat spreader.

1 22. The computing system of claim 19, wherein at least one of the plurality of downset legs has
2 at least one void formed thereon, wherein the at least one void is configured to receive one or
3 more mechanical attachment devices.

1 23. The computing system of claim 19, wherein the at least one downset leg is configured to
2 receive one or more clips.

1 24. The computing system of claim 19, wherein the heat spreader is comprised of thermally
2 conductive material.

1 25. The computing system of claim 19, wherein the top surface is approximately octagonal in
2 shape.